DEPARTMENT OF EDUCATION-FSA

FMS INTEGRATION PARTNER

INTERFACE FUNCTIONAL DESIGN

GAPS FEEDERS TO FMS INTERFACE UPDATE

Author: Cassie D'Agata
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Document Change Control

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Approval

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Project Lead Sign Off:	Jen Alden	962-0682	**Sign Off Date:**
FSA Representative Sign Off:	Shirley Singleton	377-3491	**Sign Off Date:**

Specification

Interface Name:	GAPS Feeders to FMS Interface Programs
Functional Design Document ID & Title:	GAPS_Feeders_to_FMS_Interface_Update_FD
Application:	Oracle G/L, Oracle A/P
Priority:	High
Estimated Production Date:	April 2003
Other Affected Applications:	N/A
Comments:	N/A

General Requirements

Interface Short Description:
Interfaces between FMS and four GAPS feeder systems allow FMS to capture and process transaction information through custom interface programs. The four feeder systems are Campus Based (eCB), Pell (RFMS), Direct Loan Origination (DLO), and Direct Loan Consolidation (DLC). The interfaces were designed and implemented as part of FMS Phase III efforts.

As part of the TO 119 - Transaction ID efforts, the interfaces with the four feeders systems will be changed to address the following requirements (as stated in section 2.0 of the Core FMS Requirements Matrix document):

- Ability to assign the 18-character transaction ID to all incoming transactions from Campus Based, RFMS, Direct Loan Origination, and Direct Loan Consolidation feeder systems.
- Ability to store the 18-character Transaction ID in the attribute fields for each transaction from Campus Based, RFMS, Direct Loan Origination, and Direct Loan Consolidation.

This design document covers the changes to each of the four interface programs (eCB to FMS, RFMS to FMS, DLO to FMS, and DLC to FMS).

Data Interface Expectations:
The updated GAPS Feeders to FMS Interface process will assign a unique transaction identifier (Transaction ID) to all incoming transactions (Requirement 2.1.1). This unique identifier will be generated and held by FMS. The Transaction ID will be stored in an attribute field within FMS (Requirement 2.1.2).

The Transaction ID will be sent to GAPS along with the transactions through the FMS to GAPS Interface program. The Transaction ID will be sent from GAPS along with the transactions through the GAPS to FMS Interface program. The purpose of the Transaction ID is to enhance the reconciliation effort between the four feeder systems, FMS, and GAPS.

Business Event That Initiates Interface:
All GAPS Feeders to FMS interface programs are scheduled to run daily.

Interface Characteristics:

Interface Direction:	GAPS Feeders to FMS
Interface Type:	Batch
Interface Category:	Update to current GAPS Feeders to FMS
Instances:	N/A
Frequency:	Daily
Volume:	The volume of transactions may vary.

From System: eCB, RFMS, DLO, DLC	**To System:** FMS

Selection Criteria:

Same as the existing GAPS Feeders to FMS Interface programs.

Scheduling Requirements:

Same as the existing GAPS Feeders to FMS Interface programs.

Transaction Purge Criteria:

Same as the existing GAPS Feeders to FMS Interface programs.

Contingency Procedures:

Same as the existing GAPS Feeders to FMS Interface programs.

Development Complexity:

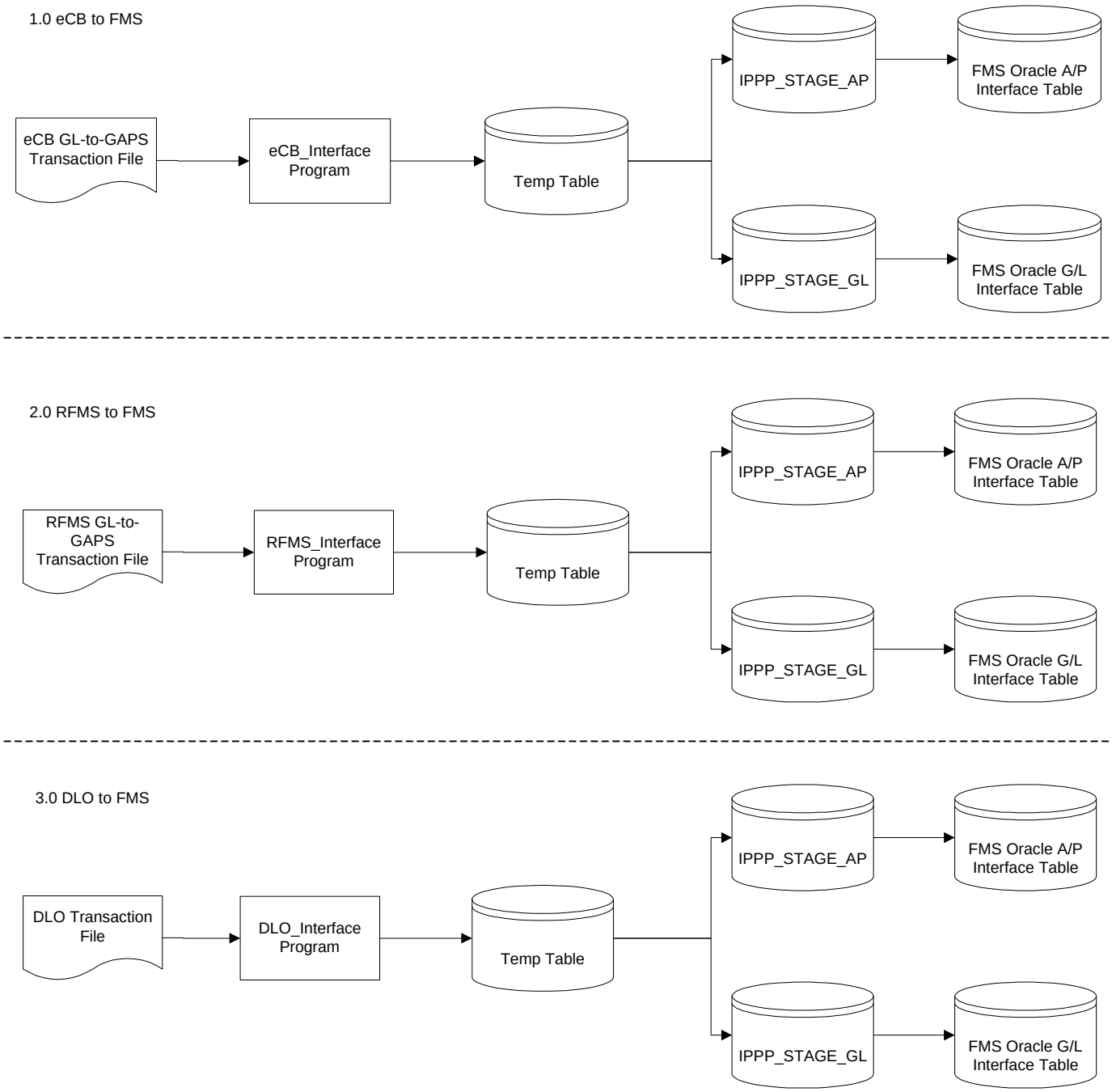
- Transaction ID – Medium

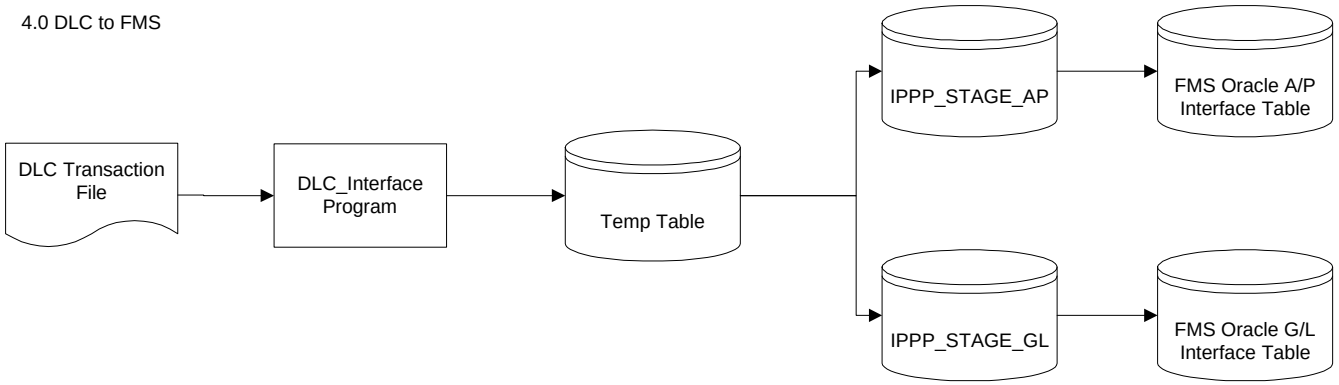
Assumptions:

- ATTRIBUTE13 fields of the Oracle Interface tables, GL_JE_LINES table, and AP_INVOICES table will be used for storing the Transaction IDs in FMS.
- eCB, RFMS, DLO, and DLC will not provide the Transaction ID to FMS.
- FMS will generate Transaction IDs for all transactions received from eCB, RFMS, DLO, and DLC prior to storing in FMS.

Design

Data Flow Diagram:





Data Flow Diagram Narrative:

1.0 Campus Based to FMS
A program is run to transfer the inbound transactions from eCB into a temp table. In addition, the program creates the Transaction ID and transfers the transactions into the correct IPPP staging table (either AP or GL). New columns will be created in the staging table to hold the Transaction ID. The information will then be sent from each staging table into its corresponding FMS Oracle Interface table. Within the interface tables, the Transaction ID will be stored in ATTRIBUTE13. The Transaction ID will begin with CB followed by the current date and an eight-digit sequence number.

2.0 RFMS to FMS
A program is run to transfer the inbound transactions from RFMS into a temp table. A separate program creates the Transaction ID and transfers the transactions into the correct IPPP staging table (either AP or GL). New columns will be created in the staging table to hold the Transaction ID. The information will then be sent from each staging table into its corresponding FMS Oracle Interface table. Within these tables the Transaction ID will be stored in ATTRIBUTE13. The Transaction ID will begin with RF followed by the current date and an eight-digit sequence number.

3.0 DLO to FMS
A program is run to transfer the inbound transactions from DLO into a temp table. In addition, the program creates the Transaction ID and transfers the transactions into the correct IPPP staging table (either AP or GL). New columns will be created in the staging table to hold the Transaction ID. The information will then be sent from each staging table into its corresponding FMS Oracle Interface table. Within these tables the Transaction ID will be stored in ATTRIBUTE13. The Transaction ID will begin with LO followed by the current date and an eight-digit sequence number.

4.0 DLC to FMS
A program is run to transfer the inbound transactions from DLC into a temp table. In addition, the program creates the Transaction ID and transfers the transactions into the correct IPPP staging table (either AP or GL). New columns will be created in the staging table to hold the Transaction ID. The information will then be sent from each staging table into its corresponding FMS Oracle Interface table. Within these tables the Transaction ID will be stored in ATTRIBUTE13. The Transaction ID will begin with LC followed by the current date and an eight-digit sequence number.

Transaction ID

Transaction IDs that are generated for feeder transactions will be comprised of the following three values:

- Program ID (CB, RF, LO, LC)
  - CB = Campus Based Transaction
  - RF = RFMS Transaction
  - LO = Direct Loan Origination Transaction
  - LC = Direct Loan Consolidation Transaction
- Date (YYYYMMDD)
- Sequence # (8 digit Number)

Example: CB2002101500000001

Data Mapping:

The IPPP staging tables (AP and GL) will be updated to include new fields to store the Transaction ID. The new fields will be called GL_TRANS_ID and AP_TRANS_ID. These fields will be mapped to the ATTRIBUTE13 fields of the corresponding GL and AP Oracle Interface Tables.

Database Objects:

Database Object Name	Object Type	Schema	Comments
CBSP_TRANS_ID_S	SEQUENCE	CBSP	Used to generate sequence number within Transaction ID for Campus Based transactions
RFMS_TRANS_ID_S	SEQUENCE	PELL	Used to generate sequence number within Transaction ID for RFMS transactions
DLOR_TRANS_ID_S	SEQUENCE	DLOR	Used to generate sequence number within Transaction ID for Direct Loan Origination transactions
DLCO_TRANS_ID_S	SEQUENCE	DLCO	Used to generate sequence number within Transaction ID for Direct Loan Consolidation transactions

Dependencies

Data Cleansing:

Task	Responsibility	Dependency
N/A		

Dependencies on Other RICE Components:

There are no interdependencies between the feeder systems. Each feeder system includes a separate temp table that is accessed solely by the respective interface program.

Dependencies on Other Business Components:

- FMS to GAPS Interface
- GAPS to FMS Interface
- FMS to GAPS Feeders Interfaces

Design Constraints:

N/A

Performance Considerations:

N/A

Implementation Considerations:

N/A

Other Dependencies/Special Concerns:

N/A

Error Handling

Potential Errors	Possible Reasons	Solution Strategy
Same as existing GAPS Feeders to FMS Interface Programs		

Testing Requirements

Test Condition	Expected Results
Refer to Unit Test Scripts in F: FMS Stabilization\ Core FMS\ Interface Design Updates\ Unit Testing\TEST SCRIPTS	

Issues and Additional Considerations

The following Issues were defined during Functional Design:

Issue	Raised By / Date Needed	Resolution/Answer	Resolved By / Date Completed
Need to determine method of distinguishing RFMS Pell transactions from COD Pell transactions and LO transactions from COD LO transactions.	Cassie D'Agata	The RFMS and LO transactions will have different program ID (first two characters of the Transaction ID) than COD transactions.	Mike Connors